

## **Appendix D**

### **Responses to Public Comments**

## Uranium Leasing Program – Programmatic Environmental Assessment Responses to the Public's Comments

### A. ENVIRONMENTAL IMPACT STATEMENT (EIS) NEEDED

**A1. COMMENT:** Commentors have requested that an Environmental Impact Statement (EIS) be prepared instead of an Environmental Assessment (EA), although no specific reason was provided.

**RESPONSE:** The preparation of an EA is defined in both CEQ's and DOE's NEPA regulations as a step in the process of evaluating impacts, the outcome of which is either a Finding of No Significant Impact (FONSI) or a determination that an EIS is needed. As documented in the Final PEA, DOE has performed an appropriate analysis and review of the impacts each alternative will have on the environment and will determine whether an EIS is warranted.

**A2. COMMENT:** Each of the alternatives analyzed in the PEA "raises serious questions and discloses significant impacts regarding management of federally owned uranium resources..." therefore an EIS should be prepared.

**RESPONSE:** It is DOE's position that neither serious questions nor significant impacts are identified by the analyses in PEA. Based on the comments received on the draft PEA, traffic impacts appeared to be the public's greatest concern; however, the analyses in the final PEA for the realistic ore production and transportation evaluation indicated that traffic impacts would not be significant. Discussions pertaining to the potential impacts to other specific affected environments are provided elsewhere in this Appendix D.

**A3. COMMENT:** The traffic impacts warrant analysis in an EIS instead of an EA.

**RESPONSE:** The analyses in this final PEA have been expanded to include realistic ore production and transportation evaluations in addition to the worst-case analyses, included in the draft PEA. These analyses demonstrate that the traffic increases through any populated area would not be significant and, therefore, do not warrant further, more detailed evaluation.

**A4. COMMENT:** A joint DOE/BLM comprehensive cleanup plan should be developed in conjunction with the leasing program and considered in an EIS.

**RESPONSE:** Reclamation of past mining activities on DOE's lease tracts is complete. Reclamation activities on BLM lands, though outside the scope of DOE's actions, is ongoing as BLM's funding allows and is covered under BLM's NEPA regulations.

**A5. COMMENT:** DOE must disclose in an EIS the legacy of uranium mining in the Uranium Mineral Belt, which includes significant impacts on human health, including worker deaths caused by uranium exposure.

**RESPONSE:** The legacy of uranium mining has no relevance to the assessment of impacts of future mining, other than to point out that because of past impacts, new human health and environmental standards have been established to protect workers, the public, and the environment. All land affected by historical mining on DOE's lease tracts has been reclaimed.

**A6. COMMENT:** The PEA is deficient because it fails to consider the “full intensity and scope of many site specific environmental impacts” including impacts to threatened, endangered, and sensitive species; bat species; critical habitat for threatened and endangered fish species; Western Yellow-billed Cuckoo; reintroduced River Otter populations and habitat; migratory bird species; cryptobiotic soils; and identified Wild and Scenic River characteristics, therefore an EIS should be prepared.

**RESPONSE:** The PEA addresses threatened, endangered, sensitive, and special status species and habitats, as well as the Wild and Scenic River study areas. DOE specifically coordinated and addressed these issues with two cooperating agencies having jurisdiction (BLM and the U.S. Fish and Wildlife Service [USFWS]). As a programmatic document, the PEA identifies those areas where there might be potential for impacts to sensitive elements of the environment such as those listed. In no area would the presence of sensitive species be so extensive as to prevent mining activities. In the case of Wild and Scenic River study areas, DOE has excluded new mining within 0.25 mile of the Dolores and San Miguel Rivers, as agreed to by BLM (the governing land management agency), even though these rivers have never been formally designated by Congress. Further, until DOE implements the decision to proceed with leasing is implemented by DOE, leases awarded, exploration conducted, and mining plans submitted, the location of new sites that might be mined are unknown. In addition, as stated in the PEA, before any site disturbance activities would be allowed, each leased tract would undergo site-specific characterization to determine whether sensitive species were present, and if so, how impacts would be minimized, in cooperation with the BLM and USFWS, as appropriate.

**A7. COMMENT:** The federal agencies with management authority over federal lands in the Uravan Mineral Belt must take no action to allow further uranium mining activities without first completing an EIS.

**RESPONSE:** DOE has evaluated all relevant impacts in this PEA and will use this PEA to determine whether to issue a FONSI or prepare an EIS. Uranium mining on BLM lands has been and will continue to be addressed in accordance with that agency’s review processes, which include the preparation of NEPA documents, as appropriate.

**A8. COMMENT:** The PEA reveals that uranium mining on public lands in the Uravan Mineral Belt has significant effects based on: a) public health and safety; b) unique characteristics of the geographic area; c) impacts to the environment that are likely to be highly controversial, uncertain, and involve unique or unknown risks; d) precedent for future actions; e) adverse effects to sites listed in or eligible for the National Register of Historic Places; f) adverse impacts to threatened or endangered species and habitat; and g) threatened violations of federal, state, or local law or requirements

**RESPONSE:** The PEA specifically addresses all the subjects listed, and the analyses do not support the commentors’ assertion of significant effects. Specifically: (a) Public health—all exposures to workers and members of the public would be below regulatory standards and the projected doses would result in less than one latent cancer fatality among the public. (b) Unique geography—disturbances would be limited to 5- to 15-acre impacts at individual mine sites dispersed over hundreds of square miles in remote areas where few members of the public travel. (c) Controversy, Uncertain and Unique risks—as defined in CEQ’s NEPA regulations (40 CFR 1508.27) there have been no specific challenges that the effects of the proposed actions on the human environment are controversial, uncertain or unique. Further, DOE has successfully operated this program for over 30 years without unacceptable risk or impacts to the workers, the

public, or the environment, and with successful reclamation. The risks are not uncertain or unique and the analyses in the PEA show that potential impacts on the environment would be small. (d) Congress set the precedent for the program more than 50 years ago, and the current resurgence of interest in uranium mining is being driven by an increase in worldwide demand for uranium. (e) Eligible historic sites—all known and listed sites are identified in the PEA and would be avoided. Site-specific reviews prior to disturbance would identify any other eligible structures, and impacts would be avoided or minimized in consultation with the State Historic Preservation Officer, as has been the program's practice for more than 30 years. (f) The potential for threatened or endangered species on the lease tracts is addressed in the PEA. As is DOE's practice, should a protected species be present, DOE and the leaseholders would work with the USFWS to ensure that no unacceptable impact would occur. (g) Lease stipulations have always mandated that leaseholders comply with all applicable regulations. There is absolutely no waiver of these regulations, as is stated in the PEA.

**A9. COMMENT:** Transportation and environmental impacts would be significant and therefore an EIS is needed.

**RESPONSE:** Under worst-case traffic scenarios, there would be less than 10 percent increases in traffic volume through population centers. Under the realistic ore production and transportation evaluations generated for the final PEA in Section 5.2, all municipalities except Monticello and Blanding, Utah, would likely not have increases above 1 to 2 percent. The analyses show that these small levels of traffic increases are not significant.

## **B. CONNECTED ACTIONS**

**B1. COMMENT:** The scope needs to include all uranium mining in the Uravan Mineral Belt including uranium extraction on lands managed by the Bureau of Land Management (BLM) because DOE's actions will likely stimulate more uranium extraction on public lands.

**RESPONSE:** The increasing price of uranium is stimulating the recent interest in uranium mining, not DOE's Uranium Leasing Program. Uranium mining on public lands outside of, and surrounding, DOE's lease tracts is governed by the 1872 Mining Law and managed by BLM. Mining outside the lease tracts is beyond DOE's authority and the scope of this PEA. Likewise, under the 1872 Mining Law, Congress has provided little if any discretion for the BLM to restrict mining claims. DOE consulted with BLM as a cooperating agency under NEPA regarding the potential impacts from increased uranium mining on BLM lands in the area. More information regarding potential impacts from increased uranium mining activities on BLM lands is included in the Cumulative Impacts section of the PEA.

**B2. COMMENT:** Federal action by both DOE and BLM is required to stabilize and reclaim uranium impacts to the public lands in the Uravan Mineral Belt.

**RESPONSE:** DOE has reclaimed all of the mines on its inactive lease tracts and, as funding is made available, BLM is reclaiming sites on its lands. Adequate funding for reclamation of all future mining on DOE's lease tracts is required via reclamation performance bonds by DOE and the Colorado Division of Reclamation, Mining, and Safety (CDRMS). The CDRMS, in cooperation with BLM, has similar requirements for mine-reclamation bonding on BLM lands.

**B3. COMMENT:** During the preparation of the EIS, DOE and BLM must continue to require interim reclamation and site stabilization.

**RESPONSE:** Reclamation and site stabilization will occur at a time that is appropriate for those mines and consistent with the terms of their leases or claims.

**B4. COMMENT:** The proper scope of analysis must include the uranium mills in Blanding, Utah and Canon City, Colorado, and mills that may open if DOE takes action to expand uranium mining on public lands.

**RESPONSE:** The operations of these mills are governed by their licenses with the U.S. Nuclear Regulatory Commission (NRC) and the States of Utah and Colorado. The decision to operate the mills is based on the price of uranium, not DOE's leasing decisions. Furthermore, ore from DOE's lease tracts represents only a small percentage (estimated to be less than 10 percent) of the total ore processed by these mills. The majority comes from mines on non-DOE lands. Any new uranium processing mill(s) proposed for the Uravan Mineral Belt are beyond the scope of DOE's PEA. Any such mill(s) would be required to go through a permitting process with the State of Colorado and/or the NRC, plus county and local agencies, as required. That permitting process (expected to take 1–2 years to complete) will allow ample opportunity for public involvement. If an additional mill is permitted, built, and becomes operational (competitively with the other, existing mills), it is likely that some ores originating from DOE's lease tracts would be taken there for processing. Such a scenario would lessen the transportation impacts currently outlined in DOE's PEA. The final PEA has been revised to include a qualitative discussion concerning a potential new milling facility being permitted and built in the area.

**B5. COMMENT:** Degradation of BLM lands from uranium mining must also be considered in an EIS.

**RESPONSE:** BLM meets its responsibilities under their regulations, NEPA, and the 1872 Mining Law through their Resource Management Plans and subsequent mining-claim-specific NEPA evaluations. DOE has evaluated both the short-term and long-term impacts of uranium mining on DOE-administered lands in this PEA and analyses show that potential impacts would be small. Further, both DOE and CDRMS require sufficient reclamation bonds from all leaseholders to provide adequate funding for post-mining reclamation. The CDRMS, in cooperation with BLM, has similar requirements for mine-reclamation bonding on BLM lands.

**B6. COMMENT:** DOE has improperly limited the scope of its NEPA analysis to its own internal plans regarding the leasing program on 38 lease tracts covering 27,000 acres of Western Colorado public lands for uranium mining over the next 10 years.

**RESPONSE:** Consistent with NEPA regulations and DOE's historical approach to compliance that has been used for the last several decades, the scope of the PEA is limited to that which is relevant to DOE's decision-making authority. Potentially relevant actions of other agencies, though outside the jurisdiction of DOE, are acknowledged and assessed in the Cumulative Impacts section of the PEA.

## **C. SITE-SPECIFIC IMPACTS**

**C1. COMMENT:** An EIS is needed to look at the lease tract and site-specific impacts. The broad and generalized analysis in the PEA does not support the issuance of any uranium leases.

**RESPONSE:** As established by past practice (and the program's existing EA) and described in the PEA, issuance of a lease does not create any action that would result in impacts. Issuance of a lease merely allows the leaseholder to propose actions that are then subjected to further NEPA review before they are authorized by DOE. Until DOE reaches a decision to proceed with leasing, leases are awarded, exploration is conducted, and mining plans are submitted, the locations of new sites that might be mined are unknown.

## **D. INDIRECT IMPACTS**

**D1. COMMENT:** The scope needs to include the impacts of bringing more uranium out of the ground and into nuclear fuel cycle and weapons programs and the consideration of the problems related to lack of storage/disposal at all stages of uranium's life cycle.

**RESPONSE:** The scope of DOE's Uranium Leasing Program does not include the entire nuclear fuel cycle. Such actions are the result of Presidential and Congressional policy decisions and, as applicable, have been and will be subject to their own evaluations under NEPA. DOE's action that is the subject of this NEPA document is limited to decision-making regarding the future of the Uranium Leasing Program. As discussed in Section 1.3 of the Final PEA, the available reserves associated with DOE's lease tracts are estimated to be 13.5 million pounds of uranium, which represents approximately 1.5 percent of the available domestic uranium reserves (purported to be nearly 900 million pounds).

## **E. CUMULATIVE IMPACTS**

**E1. COMMENT:** The document should address the past, present, and future impacts of uranium mining in the Uravan Mineral Belt by all Federal agencies.

**RESPONSE:** The PEA evaluates present mining on DOE's lease tracts under the Existing Program alternative and future mining under the Expanded Program alternative. Because all land affected by historical mining on DOE's lease tracts has been reclaimed, past uranium mining has no relevance to the assessment of impacts of present and future mining, other than to point out that because of past impacts, new human health and environmental standards have been established to protect workers, the public, and the environment. Related actions of other agencies, though outside the jurisdiction of DOE, are acknowledged and assessed to the extent practicable given the uncertainty of uranium mining on other federal lands, in the Cumulative Impacts section of the PEA. Although DOE is cognizant of other federal agencies' related actions, DOE's decision-making is distinctly independent of such actions, because those actions are governed by federal laws such as the 1872 Mining Law, which do not apply to DOE's leasing program.

**E2. COMMENT:** The analysis of cumulative impacts should include oil and gas development and potential oil shale development in the region.

**RESPONSE:** The cumulative impacts of oil and gas development in the region are discussed in Section 5.21 of the PEA. Potential cumulative impacts from oil shale development have not been included because oil shale resources are not known to occur within DOE's lease tracts, and oil shale development is still too speculative to characterize potential impacts.

**E3. COMMENT:** NEPA opportunities for public involvement in the cumulative impacts analysis must be provided before any decision can go forward.

**RESPONSE:** Cumulative impacts were included in the public draft PEA, and therefore, the public has had the opportunity to comment on those analyses. Based on the comments received on the draft PEA, only minor changes have been made in the cumulative impacts text of this final PEA, none of which are of such significance as to warrant additional public review prior to DOE's decision-making on this final PEA.

**E4. COMMENT:** Past uranium mining has had an impact on rivers in the region such as the Dolores River leaving a legacy of contaminated river sediments. This legacy should be addressed as part of the assessment of cumulative impacts that might result from future mining that would add contamination to the rivers.

**RESPONSE:** Given the extensiveness of naturally occurring uranium in the region, uranium and radium are found in stream sediments because of the natural weathering of uranium- and radium-bearing geologic formations. While past uranium milling in the region certainly contributed to sediment contamination loading, there are few mechanisms by which uranium mining would result in stream sediment contamination. Because of restrictions on mining in proximity to surface water bodies, mandatory storm water runoff controls, and very limited but treated and permitted discharges that typically evaporate before reaching any surface water body, there would be no source of contamination from future mines to surface water bodies.

**E5. COMMENT:** The PEA fails to address the cumulative impacts of past, present, and future mining on ground water.

**RESPONSE:** Because uranium mining in the region occurs hundreds of feet or more above ground water aquifers, there have been no impacts to ground water, and none are anticipated from future mining (see Section 5.5).

## **F. RANGE OF ALTERNATIVES**

**F1. COMMENT:** The document should consider a no action alternative of maintaining current withdrawals without issuing leases.

**RESPONSE:** As a matter of policy and consistent with the intent of Congress in establishing the lease tracts, should DOE decide not to issue leases as evaluated under the No Action alternative in the draft PEA, the withdrawn lands would be reclaimed and would be restored to the public domain, pending BLM's approval. The No Action alternative has been revised in the final PEA to reflect that DOE could choose to manage these lands indefinitely without leasing.

**F2. COMMENT:** The document should consider an alternative of issuing fewer leases, requiring interim reclamation, and requiring additional lease stipulations for protection of public lands.

**RESPONSE:** Given the range of alternatives and the bounding analyses of the PEA and consistent with CEQ guidelines on the range of alternatives, DOE can and may issue less than the 13 of 38 leases that have been assessed without explicitly evaluating all perturbations of zero to 38 leases. This is included in the preferred alternative.

**F3. COMMENT:** The No Action alternative analyzed in the PEA is the return of the federal lands to the public domain. This requires additional federal action by the Secretary of the Interior that should be evaluated in the document and would allow mining under the 1872 Mining Law.

**RESPONSE:** Claims under the 1872 Mining Law would be administered under existing BLM policies and procedures just as non-DOE lease tracts are currently managed. No additional federal action needs to be evaluated in DOE's PEA for this decision.

**F4. COMMENT:** The PEA should consider an alternative of making further AEA withdrawals from mineral entry.

**RESPONSE:** Additional withdrawals under the Atomic Energy Act (AEA) would require congressional action and are not within the authority of DOE. Further, any such action would be subject to valid existing rights, and based on the level of claim-staking activities during the last 2 years, most if not all areas with favorable uranium resources have been restaked, making their availability for new withdrawal under the AEA highly questionable.

**F5. COMMENT:** An alternative that includes a full cleanup program should be evaluated.

**RESPONSE:** Current leaseholders have valid existing rights that cover their lease activities, and no reclamation is warranted at this time. As a matter of record, all land affected by past mining on DOE's lease tracts has already been reclaimed. BLM is working to reclaim historical mining disturbances on their lands as funding allows. Neither action has any bearing on DOE's decision-making for the future of the program other than to ensure that sufficient bonding is required to fund all future reclamation needs. This is a requirement that DOE has adhered to in the past and will continue to adhere to, as stated in the PEA.

**F6. COMMENT:** An alternative should be evaluated that identifies the specific footprint where actual mining would be taking place.

**RESPONSE:** The lease boundaries establish vertical planes within which the leaseholder has specific rights to explore for, develop, and mine/extract uranium and vanadium ores after further action and site-specific evaluation and approval by DOE. The aerial extent of these rights far exceeds the footprint of lease activities on the ground surface. However, until leases are issued, exploration plans submitted, reviewed under NEPA and approved, and exploration completed, no specific footprint for mining disturbance can be identified; therefore, site-specific footprints cannot be assessed at this time in the decision-making process.



**F7. COMMENT:** An alternative should be evaluated under which DOE and BLM continue co-managing uranium lands without issuing leases at this time, and under a joint Department of Interior/DOE program, additional uranium-bearing lands are segregated and withdrawn.

**RESPONSE:** Under the program mandate from Congress, DOE policy, and as defined in the draft PEA under the No Action alternative, lease tracts would be reclaimed and the lands would be restored to the public domain, pending BLM's approval. In the final PEA the No Action alternative has been clarified to include the option of continued DOE management without leasing or restoration to the public domain. Regarding BLM's ability to restrict mining claims, within the provisions of the 1872 Mining Law, BLM is unable to deny legal mining claims. Regarding withdrawal of additional uranium-bearing lands, neither DOE nor BLM has the authority to segregate or withdraw additional lands specifically for the purpose of restricting uranium mining.

## **G. COOPERATING AGENCIES**

**G1. COMMENT:** DOE must invite other federal, state, and local agencies to be cooperating agencies. The entities specifically mentioned are BLM, the Nuclear Regulatory Commission (and Agreement States), the U.S. Fish and Wildlife Service, U.S. Department of Transportation, Colorado, and Utah.

**RESPONSE:** As established in CEQ's regulations, DOE involved as cooperating agencies those agencies with special expertise or jurisdiction relevant to the proposed action. Cooperating agencies included BLM, USFWS, and the Colorado Division of Reclamation, Mining, and Safety. As indicated in Section 6, DOE also consulted with other agencies, and the text of the PEA has been expanded to reflect the nature and extent of these interactions.

## **H. CONSEQUENCES OF A TERRORIST ACT**

**H1. COMMENT:** The PEA contains no analysis of any type of precautions or lease stipulations that protect radiological materials currently found in unfenced uranium mines, waste rock, and raw ore stored on these lease tracts.

**RESPONSE:** Leaseholders are required to secure their operations (using fences or other barriers) in accordance with all applicable statutes and regulations. Furthermore, raw, unprocessed ore and waste rock, similar to that which could be found at surface outcrops and countless other mine sites throughout the west, are not highly hazardous materials and would have little or no value to terrorists. Further, even though direct exposure is highly unlikely, the PEA assessed the impacts to members of the public from direct exposure to waste rock and ore and found that these exposures result in small doses and less than one additional latent cancer fatality. Due to the extreme remoteness of the lease tracts relative to population, additional controls would only reduce these already low-probability small doses.

**H2. COMMENT:** No analysis was provided regarding potential terrorist threats regarding the extensive hauling program.

**RESPONSE:** The PEA analyzes loss of an ore shipment and assesses the resulting exposures to workers and the public during cleanup. The analysis demonstrates that the doses and resulting

risk are very small. The text has been expanded to indicate that the cause of such an accident could be from an intentional act of sabotage. DOE has determined that there would be no other plausible terrorist threat to ore shipments.

## **I. TIERING**

**II. COMMENT:** DOE must prepare programmatic and site-specific NEPA analyses to address and remedy the past impacts of uranium mining.

**RESPONSE:** The past impacts of uranium mining have been evaluated under other government programs; compensation programs were established and reclamations were conducted. None of these actions are the subject of DOE's decision-making regarding future leasing on DOE-administered lands, and therefore, the current analyses need not be tiered from documents analyzing historical mining actions.

**I2. COMMENT:** When tiering is used, the program level document must be an EIS.

**RESPONSE:** DOE NEPA regulations explicitly allow the preparation of Programmatic EAs (10 CFR 1021.330) and subsequently the tiering provisions of CEQ's NEPA regulations (40 CFR 1502.20) are applicable. These regulations establish that whenever a broad program has been assessed, as is the case with this PEA, subsequent assessments "*...shall concentrate on the issues specific to the specific action.*" As it relates to the ULS program the "specific action" that occurs subsequent to the Programmatic EA is lease tract specific exploration and mining plans which DOE reviews under its NEPA regulations, and as appropriate, tiers subsequent evaluations. DOE has followed this regulatory approach for the last three decades on its Uranium Leasing Program without significant impacts to the environment or human health.

**I3. COMMENT:** The two tiered review described in the PEA does not contemplate tiering as authorized by NEPA but instead constructs two categories of decision making: reapproval of old leases and mining plans based on the PEA and NEPA review of new leases and mining plans at a later date, unless DOE deems them consistent with the PEA.

**RESPONSE:** The two-tiered approach conducted by DOE for over 10 years is consistent with NEPA by making programmatic decisions and site-specific decisions with the appropriate level of information at the appropriate times during project development. Ongoing or "old" leases, although assessed under the 1995 PEA and subsequent site-specific analyses, are continually managed and monitored by DOE and the State, and actions are reassessed as needed due to either changes in activities or changes in other perspectives, such as regulatory requirements.

**I4. COMMENT:** DOE intends to deem the PEA as sufficient NEPA analysis on which to issue leases and approve mining plans without conducting further leasing or site-specific NEPA analysis.

**RESPONSE:** As has been DOE's practice, and as stated throughout the PEA, no mining plans would be approved without further site-specific evaluation under NEPA. The results of such further evaluations would be tiered from this PEA and could lead to a decision that no further NEPA documentation is required, a tiered EA is needed, or an EIS is needed based on the actions proposed by a leaseholder. Further these site-specific analyses would ensure that the potential

environmental impacts of specific lease proposals would be bounded by the conservative assumptions in the PEA, and provide meaningful opportunity to minimize impacts even farther.

## **J. MITIGATION**

**J1. COMMENT:** The PEA is deficient because it does not adequately protect “the important wild and scenic character of this region” and it does not consider the BLM Land Management Plans in effect for the area.

**RESPONSE:** DOE disagrees that the PEA is deficient because it does not adequately protect “the important wild and scenic character of this region.” The PEA assesses the potential impacts that might result from uranium mining activities on DOE’s lease tracts, including impacts to the region’s wild and scenic character. Secondly, DOE worked closely with the BLM as a cooperating agency under NEPA, and addressed all comments received on the working draft. BLM’s comments do not support the commentor’s assertion that mining on DOE’s lease tracts would be inconsistent with BLM’s management plans.

**J2. COMMENT:** NEPA requires consideration of mitigation measures and lease stipulations that require corrective actions for past mining activities.

**RESPONSE:** All past mining disturbances on DOE lease tracts have been reclaimed, and both DOE and the State require sufficient reclamation bonds for future mining to ensure adequate post-mining reclamation. The PEA has been modified to identify the kinds of stipulations that might be included in lease agreements to reduce or eliminate impacts from uranium development.

**J3. COMMENT:** Commentors questioned the method DOE will use to mitigate traffic impacts through municipalities and whether CDOT was involved in the assessment process.

**RESPONSE:** Based on the worst-case analyses and the realistic ore production and transportation evaluations added to the final PEA, DOE does not believe that the likely traffic increases resulting from any of the alternatives assessed in the PEA would necessitate mitigative measures. DOE did consult with CDOT officials in the development of the PEA, and the additional analyses included in the final PEA reflect the agreements reached between DOE and CDOT.

**J4. COMMENT:** Commentors stated that mining plans are out of date and have not been updated to reflect requirements of Colorado law.

**RESPONSE:** All leases mandate compliance with all applicable federal, state, and local laws and regulations, and, as appropriate, mining plans are revised to reflect changing requirements. DOE reviews all new leaseholder activities to ensure compliance with applicable statutes and regulations. In addition, existing leaseholder activities are routinely (several times per year based on operational status) reviewed to ensure that such compliance is maintained.

**J5. COMMENT:** Commentors asked that regulation be established that cap the daily numbers of ore trucks that may haul through municipalities, and that set limits on the hours of operations and the days of the week that hauling might occur.

**RESPONSE:** On the basis of analyses in the PEA, DOE does not anticipate that any municipality would see significant increases in traffic resulting from ore shipments from DOE's lease tracts. Furthermore, DOE's realistic ore production and transportation evaluations, added to this final PEA, indicate that a considerable decrease in truck traffic would be seen by the municipalities located on both haul routes, especially the eastern route to the Cotter mill in Cañon City. Accordingly, no limits on the number of trucks allowed or the hours of operation are deemed necessary.

**J6. COMMENT:** Commentors want DOE to fund mitigations needed to reduce the impacts to local municipalities resulting from the increased traffic that would result from ore shipments to the processing mills.

**RESPONSE:** Based on the realistic ore production and transportation evaluations added to the final PEA, DOE does not expect traffic increases in any community to require mitigation. DOE's realistic ore production and transportation evaluations indicate that a considerable decrease in truck traffic will be seen by the municipalities located on both haul routes, especially the eastern route to the Cotter mill in Cañon City.

**J7. COMMENT:** Commentors want mitigation measures more extensively discussed in the PEA rather than assuming adequate mitigation will occur through the site-specific approval process and stipulations in lease agreements. Suggestion were made to identify in the PEA those mitigation measures that would be minimums or best management practices that would be required and modified such requirements as needed for site specific conditions.

**RESPONSE:** The final PEA has been modified to identify the kinds of stipulations that might be included in lease agreements to reduce or eliminate impacts from uranium development (see Section 5.22).

**J8. COMMENT:** Commentors recommended that noise sources, especially above ground sources such as trucks, loaders, other diesel powered equipment, and ventilation fans, be limited in hours of operation and proximity to sensitive resources such as the Dolores River and residences.

**RESPONSE:** Aboveground noise sources at a typical underground mine are limited in number and hours of operation. The analyses in the PEA demonstrate that noise from surface equipment, which is typically not operating continuously, is attenuated to typical nighttime noise limits within 1,500 feet. For the Dolores River, DOE's agreed-upon restriction on new mining within 0.25 mile would minimize noise impacts within that corridor. If mining operations were proposed on a lease tract close to existing residences, DOE would work with the leaseholder and the local residences to mitigate noise impacts.

**J9. COMMENT:** Commentors recommended that mine site lighting be turned off during nighttime hours and utilize reflectors that minimize upward glare.

**RESPONSE:** While aboveground operations and, therefore, lighting are minimal, safe operating conditions mandate that some minimum lighting be maintained during operations. Since most

mines typically work only one and sometimes two shifts, extensive nighttime lighting has not been common on DOE's lease tracts.

**J10. COMMENT:** Commentors recommended that ore trucks be equipped with tracking systems so that their movements and speeds can be independently monitored to assure compliance with speed limits and thus enhance their safe operations. Based on past experience with ore trucks and logging trucks, policies that insist on adherence to speed limits are not effective.

**RESPONSE:** Ore trucks, like all other vehicles using state highways and county roads, are required to abide by state traffic regulations and are subject to fines for violating these regulations. Equipping trucks with mandatory tracking systems (as requested) would not be warranted for traffic from a single industry and would not be practical for all heavy truck traffic.

## **K. PUBLIC PARTICIPATION**

**K1. COMMENT:** The PEA is insufficient to provide the required opportunity for public and governmental participation required by NEPA because DOE and BLM did not respond to Freedom of Information Act (FOIA) requests in sufficient time to allow public consideration of information relevant to leasing decisions.

**RESPONSE:** The subject of the FOIA request received by DOE concerned past operations. DOE disagrees that the public cannot review the impacts of the DOE's proposed action, which are provided in the PEA without reviewing the past history of the program.

**K2. COMMENT:** Additional public meetings should have been held in counties and municipalities throughout the region such as Telluride, Gunnison, Cannon City, and others.

**RESPONSE:** DOE is not required under NEPA to hold public meetings or hold a public comment period for EAs. However, DOE provided a scoping period before beginning the EA, provided a comment period on the draft PEA, conducted two public scoping meetings and three draft PEA hearings, extended the draft PEA comment period in response to public comment, notified over 120 entities of the extension (on the program's public contact list), placed notices in eleven papers regarding the meetings and comment period, and placed copies of the PEA in seven libraries in the region. Copies of the PEA were available to anyone upon request, and DOE accepted comments via e-mail, toll-free voice mail, fax, and US Postal Service. Therefore, the public had ample opportunity to participate in the process in accordance with the provisions of NEPA.

**K3. COMMENT:** Because of the length of the PEA and its technical complexity, additional time should have been allowed for commenting on the draft PEA.

**RESPONSE:** Under DOE NEPA regulations the comment period for an EA is 15 to 30 days. DOE allowed a 45-day comment period (July 12 through August 25, 2006) for this PEA, which is the minimum regulatory review period requirement for an EIS. DOE does not agree that the document is of such technical complexity or length that a longer comments period was warranted.

**K4. COMMENT:** The proposal to remove lease stipulations that have been in place for over 30 years is unwarranted and not supported by site-specific analyses. Lease documents have not been released to the public in response to a FOIA request so the existing stipulations can be reviewed.

**RESPONSE:** There is no proposal to remove from current or future leases any stipulations that have proven effective and necessary during past operations. DOE is gathering information on past operations and leasing agreements in response to a FOIA request but disagrees with the assertion that public review of such information is a necessary component of DOE's proposal to continue its Uranium Leasing Program.

**K5. COMMENT:** Notice of the preparation of the PEA as well as the scoping meetings and draft PEA hearings should have been made in the Federal Register.

**RESPONSE:** Neither CEQ's nor DOE's NEPA regulations and guidelines require publication of *Federal Register* notices for EAs. The impacts relative to DOE's Uranium Leasing Program in Colorado are of local interest, and therefore an extensive effort was made to notify interested parties via mailing lists, newspaper ads, and the public meetings that were held even though they were not required.

**K6. COMMENT:** Counties requested that they be provided the opportunity for input at the time that DOE and the State of Colorado are approving site lease tract specific actions such as exploration, mining, and reclamation and that the PEA clarify that new uranium development on DOE lease tracts would be subject to local planning regulations regarding operations, road use, weed control and reclamation.

**RESPONSE:** All lease agreements stipulate that the leaseholder is obligated to comply with all applicable federal, state, and local regulations and requirements, and the PEA includes such requirements in Sections 1.2 and 1.3.

**K7. COMMENT:** Public requested that they have the opportunity to be involved in the review of all lease tract specific approvals such as exploration plans, mining plans, and reclamation plans prior to approval by DOE or the State even if categorically excluded by DOE.

**RESPONSE:** Historically, DOE's review and approval process for leaseholder exploration, mining, and reclamation plans have been determined to be categorically excluded under DOE's NEPA regulations, and as a result, the plans are not subject to formal public review. For future actions that are categorically excluded, DOE does not anticipate public involvement; however, should a future action on a lease tract warrant evaluation under an EA or EIS, the public would be afforded the opportunity to become involved. In addition, the Colorado Division of Reclamation, Mining, and Safety reviews plans for all mineral exploitation within the state, and public involvement (review and comment) is part of that process. There is also an additional opportunity for public involvement through the various county agencies' permitting processes.

## **L. SCOPE OF ANALYSES**

**L1. COMMENT:** Many impacts were not adequately studied in the PEA: impacts on the federal treasury, impacts of abandoned mine sites, impacts of milling and further exploration.

**RESPONSE:** With the exception of further exploration, which is adequately discussed in the PEA, all the listed actions are outside the scope of DOE's proposed action and have no bearing on DOE's decision-making on its Uranium Leasing Program. In addition, DOE has completed the reclamation of abandoned mine sites on the lease tracts.

**L2. COMMENT:** The analyses should address the consequences of disruption and recontamination of already reclaimed and recovering areas.

**RESPONSE:** The PEA acknowledges that all of DOE's lease tracts have had previous uranium mining, that they have been reclaimed, and that future mining would likely occur on or near previously disturbed but reclaimed lands because those locations are the most likely sources of economically recoverable ore. Given the small footprint of mining and the requirement for post-mining reclamation, these impacts would be neither significant nor long-term.

**L3. COMMENT:** Commentors proposed that utilization of DOE's uranium stockpiles, reprocessing of spent fuel, and purchase of foreign sources of nuclear materials or fuel be evaluated.

**RESPONSE:** The suggested actions above are being pursued as part of the nation's overall energy strategy; however, the assessment of such alternatives is beyond the scope of DOE's decision-making on the Uranium Leasing Program, which is limited to decisions on whether to continue or terminate the program, and if the program is continued, to what extent should leases be offered. Utilization of DOE's uranium stockpiles, reprocessing of spent fuel, and the purchase of foreign sources of nuclear materials are all actions that are independent of DOE's Uranium Leasing Program. Whether DOE continues its Uranium Leasing Program has no effect on any of the above actions.

**L4. COMMENT:** The analyses should have assessed the entire nuclear fuel cycle cradle-to-grave, from mining through milling, enrichment, power generation, and waste disposal.

**RESPONSE:** The scope of DOE's Uranium Leasing Program does not include the entire nuclear fuel cycle. Such actions are the result of presidential and congressional policy decisions and, as applicable, are subject to their own evaluations under NEPA. DOE's actions that are the subject of this analysis under NEPA are limited to the continuation or termination of the Uranium Leasing Program on lands under its authority and responsibility.

**L5. COMMENT:** The Canon City uranium mill, which is currently considered as a superfund site, should be removed from consideration by DOE. But if it remains as an option for uranium ore processing from DOE's lease tracts, the mill's operations should be thoroughly evaluated in DOE's NEPA document.

**RESPONSE:** The Cañon City mill is a licensed processing facility operating under the statutes and regulations of the State of Colorado and the NRC. Past, present, and future operations of the mill have been and will be subjected to independent reviews by those agencies in granting and maintaining their operating license. DOE has no authority to prohibit the use of any legally licensed uranium mill.

**L6. COMMENT:** In addition to the analysis of the health effects from radon exposure, the assessment should have considered the impacts from the dust that will be released from mines and trucks.

**RESPONSE:** Conventional mining techniques use water spray to control dust exposures to workers, and ore trucks are required to be covered during transport to the mills. Specifically, the Mine Safety and Health Administration (MSHA) strictly regulates mining activities with reference to miners' health; the U.S. Environmental Protection Agency (EPA) regulates fugitive dust emissions from mines and mine sites under the Clean Air Act; and the Colorado Department of Transportation (CDOT) regulates all activities pertaining to transportation. In addition, the worker and public exposures calculated in the PEA have included dust as one of the exposure sources in the human health effects analyses.

**L7. COMMENT:** The document should include information regarding the process by which any decision may be appealed.

**RESPONSE:** DOE has no administrative process by which decisions under its NEPA regulations (10 CFR 1021) may be appealed.

**L8. COMMENT:** Commentors requested that DOE's standard lease language be appended to the PEA so that the public and agencies might confirm that requirements that would avoid or mitigate unacceptable impacts are included in the lease agreements.

**RESPONSE:** DOE has not included a copy of the standard lease document as an appendix to this PEA because the lease documents are not subject to the public review process. However, DOE has revised the final PEA to include a section on stipulations that would be included as appropriate in future lease-related activities.

**L9. COMMENT:** Commentors requested that the PEA and DOE's lease agreement stipulate that all uranium mined in the United States be used exclusively within the United States and not sold as ore, processed uranium, or nuclear power plant fuel for foreign uses.

**RESPONSE:** This request is beyond the scope of DOE's Uranium Leasing Program PEA. Uranium is a mineral commodity that is traded in a world market. In reality, uranium produced domestically in the United States is first sent to one of two conversion facilities located in North America where it is blended with uranium from other sources (domestic and/or foreign) and is typically converted to uranium hexafluoride (UF<sub>6</sub>), thereby losing its origination identity. From there, the uranium product is sent to an enrichment facility where the <sup>235</sup>U component of the uranium product is enriched to the point that it becomes usable in nuclear power plant reactors. Lastly, the uranium product is sent to a fuel fabrication facility for configuration into a usable fuel assembly. Different federal entities are responsible for the regulation of the uranium at different stages. Ultimately, only Congress has the authority to restrict the sale of uranium for foreign uses.

**L10. COMMENT:** The PEA should provide a list of persons that received copies of the PEA.

**RESPONSE:** DOE posted the Draft PEA on its website for the general public to review. CEQ and DOE NEPA regulations have no requirement to list recipients of EAs.



**L11. COMMENT:** Not all references were made available in public reading rooms.

**RESPONSE:** DOE maintains copies of all references in its reading room in Grand Junction. Recognizing that some references may not be readily available to readers outside of Grand Junction, DOE's practice is to make available upon request any references that were cited in its NEPA documents. In response to specific requests, DOE did provide copies of some discrete documents (that were legally and cost-effectively reproducible and were not readily available to the public via other means, i.e., the internet) to other specific reading rooms. There is no regulatory requirement to provide copies of all cited references in reading rooms throughout the region.

**L12. COMMENT:** The PEA is lacking references to statutes, regulations, review plans, or rules that set forth the requirements for approvals of exploration, development, production and reclamation at the mine sites or the protection of the health and safety of worker and the public.

**RESPONSE:** DOE's leaseholders are required to comply with all applicable statutes and regulations. This requirement is very broad and includes federal, state, and local regulations that pertain to the activities being proposed and conducted. The PEA contains references to this lease requirement in Sections 1.2 and 1.3. In addition, there are federal and state regulations that specifically pertain to the health and safety protection of workers (via MSHA) and the public (via EPA, CDRMS, and CDOT) and are protective of the environment (via EPA, Colorado Department of Public Health and Environment [CDPHE], and CDRMS). Leaseholder plans are approved when DOE is satisfied that the proposed activities are in compliance with applicable statutes and regulations.

## **M. OPPOSED TO LEASING**

**M1. COMMENT:** Actions taken in violation of NEPA must cease – DOE should notify lessees that lease extensions issued are void and no mining activities are currently authorized.

**RESPONSE:** No actions are taking place in violation of NEPA, and there is no reason to suspend actions that were assessed under past NEPA analyses and for which legally binding leasing agreements have been established.

**M2. COMMENT:** Commentors are opposed to uranium mining based on impacts to the natural beauty of the environment and the health and safety of miners and area residents.

**RESPONSE:** The PEA fully assesses the impacts of the proposed actions to biota, the visual environment, and the health and safety of workers. Based on the relatively small footprint and remoteness of the mine sites and the regulatory limits for worker and public exposures, it is DOE's position that these impacts would not be significant.

**M3. COMMENT:** Commentors are opposed to leasing because of concerns to cultural resources, including traditional cultural properties, which have high densities in this region.

**RESPONSE:** DOE is currently in consultation with six area tribes to identify any traditional cultural properties that potentially exist within or adjacent to the DOE lease tracts, and such consultation will continue into the future. The final PEA has been revised to include a summary discussion of these tribal consultations. In addition, DOE requires that all proposed exploration and mining sites undergo detailed review for historic, archaeological, and cultural resources and

that impacts to such resources be adequately addressed in consultation with the State Historic Preservation Officer and Tribal Historic Preservation Officer before surface disturbance activities such as exploration or mining take place. DOE will not authorize on-site activities until these reviews are completed and any concerns adequately addressed.

**M4. COMMENT:** Commentors suggested that rather than allowing new uranium mining, existing stockpile should be used and spent fuel from reactors reprocessed.

**RESPONSE:** As a matter of national energy policy, all sources of nuclear material for power generation are being evaluated and may lead to options sometime in the future. However, at this time in technology development and as a part of the national energy policy, mining of uranium is an integral part of the nation's energy strategy.

**M5. COMMENT:** The benefits of nuclear power do not outweigh the risks and impacts. Nuclear power should be abandoned in favor of more renewable energy, less impactful, energy sources such as wind and solar.

**RESPONSE:** The Energy Policy Act of 2005 includes efforts toward all energy sources. The Uranium Leasing Program is a component of the expanded emphasis on nuclear power in the national policy.

**M6. COMMENT:** Commentors are opposed to leasing because the industry's participants have limited liability and therefore the taxpayer is really on the line for accidents, site cleanups and storage problems.

**RESPONSE:** Both DOE and the State of Colorado require surety bonds from all mine operators in amounts sufficient to cover the cost of post-mining site reclamation.

**M7. COMMENT:** Commentors are opposed to leasing because federal agencies do not have sufficient manpower or resources to monitor the activities of the mines or truckers hauling the radioactive ore.

**RESPONSE:** DOE, MSHA, and the State of Colorado routinely monitor mining activities, and the State Highway Patrol and CDOT oversee shipping and respond to any accident involving ore shipments.

**M8. COMMENT:** Commentors are opposed to uranium mining because past mining has caused health effects in the region that are a continuing cost burden to Medicare/Medicaid as well as private insurances, in addition to which huge compensations are being paid to industry workers that have suffered as a result of mining.

**RESPONSE:** Because of the lessons learned from historical mining activities, today's regulations that limit the exposure of the public and workers are designed to prevent the health effects that occurred historically. Measures such as dust control and ventilation practices, and worker exposure monitoring are the direct result of this improved regulatory environment.

**M9. COMMENT:** Commentors were opposed to leasing mineral rights under their private property.

**RESPONSE:** There are very limited private lands (surface ownership only) associated with DOE's lease tracts where DOE controls the mineral rights beneath the private lands. DOE has successfully administered leasing activities on these lands for over 30 years.

**M10. COMMENT:** Commentors are opposed to uranium mining and nuclear power because it violates their commitment to sustainability, as the wastes cannot be either kept out of nature or be used as a building block for more life.

**RESPONSE:** Nuclear power is a component of the nation's energy policy because it represents a viable energy source that does not depend upon foreign imports. Fuel reprocessing is currently being pursued as part of the nation's overall energy strategy; such action would significantly decrease the amount of waste materials that are currently being managed. In addition, by regulation, the waste products of the nuclear fuel cycle must be disposed of in a manner and location that keeps it out of the human environment.

## **N. TRAFFIC IMPACTS**

**N1. COMMENT:** CDOT made several comments regarding the traffic that would be generated from commuting workers and ore trucks and based their comments on provisions of the State Highway Access Code. Their concerns included safety at intersections, traffic entering the State Highway system, peak hour volumes, physical deterioration of roads, estimation of highway accident rates, the need for traffic studies, and permit requirements.

**RESPONSE:** DOE met with CDOT and clarified that the point of entry to the highway system for all leases would be onto county roads, and therefore the leaseholders would obtain their permits from the counties. In order to more clearly demonstrate the very small increases in traffic at the intersections of county roads with the state highways, additional tables have been generated and a map plate included in this final PEA. DOE also clarified that for no alternative would the peak hour volume approach the 100 vehicles per hour levels at which the Code suggests that more detailed traffic studies be performed. DOE has recalculated the projections of accident rates from ore trucks in this final PEA using statistical data for heavy, long-haul trucks. In the meeting with CDOT, it was clarified that the Colorado fuel tax is the mechanism by which highway maintenance funds are collected from highway users and that additional user-specific taxes are not collected. Recognizing the potential for increased traffic to result from development of uranium claims on BLM lands and the expanding oil and gas industry in the region, DOE and CDOT agreed on a collaborative approach among representatives from DOE and its leaseholders, BLM and its claimants, CDOT, and the respective counties to monitor traffic growth in the future and assess the traffic impacts at various intersections where county roads meet state highways. Site-specific actions may be needed in the future to address these impacts. CDOT indicated that this action would likely occur during the County permitting process. The final PEA includes a brief, qualitative discussion of this requirement.

**N2. COMMENT:** Ore truck traffic will result in significant impacts in cities and towns.

**RESPONSE:** The traffic analyses in the draft PEA on which the comment is based were bounding analyses that assumed the worst-case conditions under the Expanded Program alternative of all 150 ore trucks traveling to each mill, a highly unlikely scenario. However, even under this highly unlikely, worst-case scenario, under the Expanded Program alternative these increases would not exceed 10 percent through population centers, even under the highly unlikely worst-case shipping analyses, and through most populated areas the increase would be less than 5 percent (Section 5.2.1). The only areas in which traffic would increase more than 10 percent under worst-case conditions would be areas of sparse population and very low daily

traffic levels. Based on level of service analyses (Section 5.2.1), even under the worst case there would be no increase in traffic congestion under the Expanded Program alternative. Under DOE's realistic ore production and transportation evaluation (added to the transportation discussion in the final PEA), far fewer ore trucks would be seen by the municipalities located on both haul routes, especially the eastern route to the Cotter mill in Cañon City.

**N3. COMMENT:** Many of the roads that would be used by ore truck are not straight or flat and are difficult to safely pass on for long distances.

**RESPONSE:** The analyses in the PEA have assessed the effect that ore trucks would have on traffic, congestion, and accident rates, and even under the worst-case analyses there would not be a significant effect on any of these factors from even the Expanded Program alternative. Under the realistic ore production and transportation evaluation added to the final PEA, a considerable decrease in truck traffic would be seen by the municipalities located on both haul routes, especially the eastern route to the Cotter mill in Cañon City. In addition, the majority of the ore trucks would be hauling in the non-mountainous, remote, flatter, straighter, and higher-visibility areas of western Colorado.

**N4. COMMENT:** Local emergency responders and facilities are not equipped to deal with accidents involving radioactive materials. Spills could take months to cleanup and put emergency responders at great risk.

**RESPONSE:** As analyzed in the PEA, uranium ore presents no undue risk to emergency responders in the event of an accident. The hazard of the material as shipped ore is no more than the hazard to the miners involved in its extraction. For example, in 2006 on Highway 50 east of Salida an ore truck tipped over and deposited its entire load on the side of the road. The spill was cleaned up within a week with no unacceptable exposures to workers or the traveling public. After the cleanup, there remained no residual evidence of the spill affecting the public, agricultural or other land uses, or property values.

## **O. IMPACTS TO SURFACE WATER BODIES**

**O1. COMMENT:** Commentors expressed concern over the impact to rivers and streams from uranium mining, particularly the Dolores and San Miguel Rivers. Some requested that alternatives considered should add operation stipulations and interim reclamation stipulations that are necessary to protect the Dolores River watershed from further contamination.

**RESPONSE:** In consultation with the BLM, a 0.25-mile exclusion zone on new mining has been stipulated in the PEA for protection of the Dolores and San Miguel Rivers under all alternatives. All lands affected by past mining on DOE's lease tracts have been reclaimed, and BLM (as budget allows) is working to reclaim inactive mines on BLM lands. All new mining leases include stipulations for post-mining reclamation, and bonds are required by DOE and CDRMS to ensure that sufficient funding would be available for reclamation.

**02. COMMENT:** DOE should evaluate an alternative that refrains from issuing leases within 1 mile of the Dolores River or San Miguel River, adopts protections for the Dolores River Canyon that have been recommended for Wild and Scenic River status.

**RESPONSE:** Based on DOE's past leasing experience, the exclusion of leasing activities from areas within one mile of the Dolores and/or San Miguel Rivers is considered excessive and unwarranted. In consultation with BLM, DOE has stipulated in the PEA that no new mining would be permitted within 0.25 mile of these rivers, even though their status as study areas has exceeded the regulatory period specified in the original Act. This stipulation applies to all alternatives.

**03. COMMENT:** Commentors expressed concern over the impacts on aquatic life, fisheries, and water quality that would result from an ore spill into one of the many rivers or lakes that would be crossed by ore shipments.

**RESPONSE:** As discussed in the PEA (Sections 5.2.1.4 and 5.2.2.4), uranium ore is not highly soluble, and therefore, the consequences of an ore spill into a water body would not be significant. Additional quantitative information has been added to this final PEA that addressed the low potential toxicity of uranium ore to water bodies and aquatic organisms.

**04. COMMENT:** Commentors noted that the draft PEA failed to identify the Black Canyon of the Gunnison National Park and the Curecanti National Recreation Area both of which are accessed by State Highway 50 between Montrose and Gunnison, a primary ore haul route to Canyon City. Given the proximity of these special areas to the haul route there are concerns on the impacts to visitors to these areas as well as the potential for truck collision with terrestrial biota such as Rocky Mountain bighorn Sheep. Concerns were also expressed over the effects on water quality and aquatic biota in the event of an accident.

**RESPONSE:** Both the National Park and National Recreation Area have been added to the final PEA. Based on the realistic ore production and transportation evaluation added to the final PEA, the likely increases in traffic past these sensitive areas would only be about one percent over a 24-hour period. This minor increase would not result in significant impacts to visitors or terrestrial biota. As discussed in the PEA, the impacts of an accidental spill on workers and the hypothetical nearby public would not be significant, nor would the impacts be significant to any aquatic environment into which ore might spill.

**05. COMMENT:** Commentors requested that the PEA identify where sediments and liners used in retention ponds are disposed of and discuss past problems with mine water discharge ponds such as leakage, impacts on wildlife, and discharges to surface water bodies, ground water and reclamation.

**RESPONSE:** As described in the PEA, very few mines require dewatering, and those that do use engineered ponds that meet all federal and state requirements, including those of the USFWS to protect wildlife, if needed. No chemical dissolution is used in mines on DOE's lease tracts, and the water being removed from the mines is unaltered ground water, not mine process water. Liners and sediments would be disposed of at State-approved disposal sites. Water is treated if necessary before discharge, and CDPHE inspects ponds as part of its discharge-permitting process.

**O6. COMMENT:** The PEA fails to adequately discuss the potential for hazardous components of ore and waste rock besides uranium and radium to percolate from ore piles and harm water resources and other elements of the environment including plants that might take up these contaminants and the animals that graze on them.

**RESPONSE:** This final PEA has been expanded to include a discussion of the low toxicity of uranium ore and the associated low risk to the environment from ore or waste rock storage.

## **P. SUPPORT FOR LEASING**

**P1. COMMENT:** Commentors with personal experience in uranium mining submitted comments in support of mining. Based on their experience, comments expressed opinions that neither mining nor shipping of ore resulted in significant negative impacts in the past nor would there be any significant impacts from future mining on DOE lease tracts.

**RESPONSE:** Based on the analyses performed within the PEA, DOE has determined that under the preferred alternative, the impacts of its Uranium Leasing Program would not be significant.

**P2. COMMENT:** Commentors spoke in favor of nuclear power and felt that the issues of waste disposal from the nuclear fuel cycle are political and not technical issues that should not affect decision-making on DOE leasing.

**RESPONSE:** DOE agrees that other elements of the nuclear fuel cycle are outside the scope of this analysis.

**P3. COMMENT:** Commentors spoke out against suspending uranium mining for an indefinite period to lock up the resources for the future.

**RESPONSE:** Based on this PEA, public and agency comments, and other national energy policy considerations, DOE has decided that continuation of the leasing program would not cause significant environmental impacts and that its leasing program will continue.

**P4. COMMENT:** Commentors cited the Energy Policy Act of 2005 language supporting increasing the nations electric generating capacity and using more nuclear power as the policy basis behind DOE's Uranium Leasing Program and supported the need for the Expanded Program alternative to meet the needs of an expanding nuclear power industry.

**RESPONSE:** DOE agrees with the comment.

**P5. COMMENT:** Commentors noted that DOE's lease tracts are among the most viable in the country given their known resource potential and their proximity to the very limited uranium mills in the US.

**RESPONSE:** DOE acknowledges that, from a historic perspective, the DOE lease tracts were recognized for their known resource potential. However, as discussed in Section 1.3 of the Final PEA, the available reserves associated with DOE's lease tracts are estimated to be 13.5 million pounds of uranium, which represents approximately 1.5 percent of the available domestic uranium reserves (purported to be nearly 900 million pounds).

**P6. COMMENT:** Commentors spoke in favor of the Existing Program alternative to minimize environmental damages, health impacts, and the quality of life.

**RESPONSE:** It is DOE's position that under the Expanded Program alternative, which is DOE's preferred alternative, impacts would not be significant.

**P7. COMMENT:** Commentors spoke in favor of the Expanded Program alternative, as the uranium and vanadium are needed nationally. By themselves, mining on the existing lease tracts are not sufficient to sustain any operating mill.

**RESPONSE:** The Expanded Program alternative is DOE's preferred alternative for these and other reasons set forth in the PEA.

**P8. COMMENT:** Commentors spoke in favor of the Expanded Program alternative based on the positive socioeconomic benefits that they believe will result for the local area.

**RESPONSE:** DOE agrees that positive economic impacts would result from this action.

## **Q. SENSITIVE TRANSPORTATION CORRIDORS**

**Q1. COMMENT:** Commentors noted that ore trucks hauling between Montrose and Canon City would pass through Curecanti National Recreation Area and traverse about 30 miles of the West Elk Loop Scenic and Historic Byway. Commentors stated that the PEA failed to adequately assess the impacts of ore shipments to users of the picnic grounds, campgrounds, and scenic overlooks along this corridor, as well as other travelers from 300 daily ore truck shipments.

**RESPONSE:** Based on CDOT statistics provided in the PEA, average daily traffic on US-50 between Montrose and Cañon City ranges between 2,600 and 12,500 vehicles a day. Under the worst-case analyses in the PEA, the increase in traffic that would result in the 150 one-way (300 round trip) ore shipments would range between 2.4 and 11.7 percent. Based on the realistic ore production and transportation evaluation added to the final PEA, the likely increases in traffic past these sensitive areas would only be about one percent over a 24-hour period. Increases of this small percentage would not affect the experience of users of this section of the highway.

**Q2. COMMENT:** Commentors questioned the advantage of hauling ore to the Canon City Mill instead of the White Mesa Mill given its proximity to most of the lease tracts, windy mountain roads and passes that are difficult to travel in the winter, and asked that ore hauling not exceed past levels of hauling.

**RESPONSE:** The bounding analyses included in the PEA represent an approach typically used in NEPA documents to inform decision-makers of the maximum possible impacts that could occur from a proposed action even though those impacts are highly unlikely. DOE agrees that economic factors would govern the choice of processing mills that would be used by mine owners and has included a realistic ore production and transportation evaluation in the final PEA based on historical production rates and likely mill choices. This analysis shows that the likely increase in traffic to the Cañon City mill would be 0.2 to 1.2 percent and not the 2.4 and 11.7 percent projected by the worst-case analyses, which assumed all 150 daily ore shipments went to the Cañon City mill or to the White Mesa mill.

**Q3. COMMENT:** Commentors questioned whether wastes from ore processing at Canon City would travel on the West Elk Loop Scenic Byway for disposal.

**RESPONSE:** The current license for the Cañon City mill allows for on-site disposal of waste from ore processing. Whether that would be changed in the future, and if so, where a new disposal site would be located is too speculative to assess at this time. However, any such off-site disposal would at a minimum require a license amendment and its own evaluation under NEPA by the NRC and/or other state-specific environmental review requirements, as applicable.

**Q4. COMMENT:** Commentors requested that DOE take all actions necessary to protect citizen-proposed Wilderness areas.

**RESPONSE:** Such areas have no legal protection, and providing protection would inappropriately grant de facto wilderness status to such areas and preclude uses such as oil and gas exploration, minerals extraction, and other uses allowable under current laws and regulations. The Department of Agriculture and Department of Interior are responsible for managing the National Wilderness Preservation System, pursuant to the Wilderness Act of 1964.

## **R. SOCIOECONOMICS**

**R1. COMMENT:** The jobs that will result from this action would be of more benefit if they were used to cleanup existing waste dumps.

**RESPONSE:** All historical mine sites on DOE's lease tracts have been reclaimed, and under the Uranium Mill Tailings Radiation Control Act, DOE has reclaimed all abandoned uranium mill sites except the Moab site, which is currently being remediated. All new mining activities assessed in this PEA would be required to post surety bonds that would be sufficient to cover the costs of reclamation. If the commentor is suggesting the reclamation of nonuranium mining-related wastes, such actions would be beyond the scope of this PEA.

**R2. COMMENT:** Royalties to the federal government are of little value to the local communities who must deal with the impacts of mining and transporting these hazardous materials.

**RESPONSE:** The royalty payments (revenue) generated from DOE's Uranium Leasing Program have far exceeded the costs of remediation of the historical mining sites on DOE's lease tracts. In addition, the lease tracts are located on public lands and are included within the acreages considered for federal "PILT" (payment-in-lieu-of-taxes) funds.

**R3. COMMENT:** The corporations that promise counties wealth and prosperity for their towns and cities either go broke or leave after ruining those towns and cities that they were going to "save".

**RESPONSE:** The boom-bust cycle of resource extraction activities such as uranium, coal, or other mining actions, oil and gas drilling, or even logging, are a recognized impact that these activities can cause. At the anticipated scale of DOE's Uranium Leasing Program, a maximum of 570 workers spread over lease tracts from southeast of Gateway to north of Dove Creek, no significant socioeconomic impacts are expected, even under the Expanded Program alternative.



## **S. PURPOSE AND NEED**

**S1. COMMENT:** There is no demonstrated or articulated purpose or need to issue leases or approve uranium mining plans on the Uravan Mineral Belt.

**RESPONSE:** The Purpose and Need section has been revised to reinforce DOE's need to support the national energy policy.

**S2. COMMENT:** Commentors noted that the Energy Policy Act does not contain language emphasizing the reestablishment of nuclear power as described in the under purpose and need in the PEA. Also noted was a failure to note the requirement under 10 CFR 760.1 to seek the highest bid or most return for the Treasury.

**RESPONSE:** DOE disagrees with the comment's premise that the Energy Policy Act does not significantly support the reestablishment of nuclear power and refers the commentors to Sections 601 through 657 of the Act. The purpose and need section has been revised to include DOE's intent to procure the highest bid for its leases in accordance with 10 CFR 760.1.

**S3. COMMENT:** The purpose and need statement does not explain what makes an action in the Government's best interest and suggests that the question should be what is in the public's best interest.

**RESPONSE:** The Purpose and Need section has been revised to reinforce DOE's responsibility to support the national energy strategy, which among other energy sources, promotes nuclear energy.

## **T. ECONOMICS**

**T1. COMMENT:** An economic or market analysis should be included that determines whether the best value for the government and taxpayers for these assets would be through sales now or at some time in the future. Such an analysis should also confirm that any such sale would be for domestic use and not foreign sale.

**RESPONSE:** Under NEPA, decision makers are provided assessment of the environmental impacts of a proposed action. NEPA does not require a cost-benefit analysis, but notes if such is done it shall be included by reference and may be summarized in a NEPA document (40 CFR 1502.23). DOE is mandated to support the national energy policy and has no authority to delay leasing until some time in the future when there may or may not be active milling capabilities in the region to process mined ore. DOE achieves the best value to the government and taxpayers for its lease through a competitive bid process.

## **U. ENVIRONMENTAL JUSTICE**

**U1. COMMENT:** The PEA fails to acknowledge that San Juan County Utah, the location of the IUC Uranium Mill is the poorest in Utah and the fact that the mill is only a few miles away and upwind of the White Mesa Ute Indian Reservation. Hauling ore to this mill and processing it there would be a disproportionate and adverse impact to the Native Americans that live in that area.

**RESPONSE:** The IUC mill at White Mesa is a licensed mill operating under the authority of the State of Utah and the NRC, and its continued operations are outside the scope of this PEA and outside DOE's authority. The mill's construction and operation was the subject of an EIS prior to its original licensing in 1979, and every modification to its license has been the subject of re-evaluation under NEPA. Further, exposure pathways to Native Americans that might utilize resources from the IUC site were generated for DOE's EIS for the Moab mill tailings (DOE/EIS-355), and the analysis did not identify any adverse or disproportionate impacts. In addition, haul routes from DOE's lease tract to the IUC mill would not pass through the White Mesa Ute Reservation; they would be coming from the north through Monticello and Blanding.

End of current text